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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,095	12/17/2001	Angelo Vignotto	7587.183US01	2880
23552	7590	11/08/2005	EXAMINER	
MERCHANT & GOULD PC			KYLE, MICHAEL J	
P.O. BOX 2903			ART UNIT	
MINNEAPOLIS, MN 55402-0903			PAPER NUMBER	

3677

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/022,095	Applicant(s) VIGNOTTO ET AL.	
	Examiner Michael J. Kyle	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claim 6 is withdrawn in view of the newly discovered reference(s) to Ouchi et al (U.S. Patent No. 5,407,213). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 appears to be claiming two separate embodiments. The next to last paragraph of claim 6 requires the second wall to have an edge that is folded toward the other insert. This appears to be shown in figure 1 of the instant application. The last paragraph of claim 6 requires the shield to form a static seal against one race of the bearing and a dynamic seal, sealing the annular chamber. This appears to be shown in figure 2. It is unclear which embodiment is being claimed. Neither the drawings nor specification describe the features of the last two paragraphs of this claim being incorporated into a single embodiment.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over EPO 0748968 B1 (“EPO ‘968”) in view of Vignotto (U.S. Patent No. 5,090,236) and Ouchi et al (“Ouchi”, U.S. Patent No. 5,407,213). EPO ‘968 discloses a sealing device for a rolling contact bearing comprising two races (3, 4) coaxial to each other, two inserts (7, 8) made of metal material and coupled to a relative race, a sealing lip (25) extending between the two inserts, and a sensor (48) supported by a more external of the two inserts (7). The more external of the two inserts (7) comprises an annular housing (45, 46) for supporting and at least partially containing the sensor. The annular housing is axially open towards an outside of the bearing and presents a shield (52). The annular housing (45, 46) includes two sidewalls (45, 46) at opposed edges of the sensor. The shield spans the sidewalls. EPO ‘968 further discloses the housing to be radially delimited by a first (45) and second cylindrical wall (46) that form part of the more external insert. The first cylindrical wall defines an internal radial support for the sensor and the second wall defines an annular channel (50) with the other insert. The second wall to presents a cylindrical edge (near top of 45) that is folded toward the other insert and defines an outer radial limit for the shield (52). EPO ‘968 fails to explicitly disclose the sensor to be a phonic wheel arrangement, and is silent as what material the shield is made of. Additionally, EPO ‘968 fails to show the shield having two radial ends, one forming static seal against a race, and the other dynamically sealing the annular channel.

6. Vignotto teaches a speed sensing bearing assembly that includes a phonic wheel (13) and a shield (16). The shield (15) is made of rubber (column 2, lines 37-40). Vignotto uses the

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phonic wheel to determine the speed of a rotating element. Because the sensor of EPO '968 and the phonic wheel of Vignotto are used for the same reason, it is considered obvious that one having ordinary skill in the art would know to use either one, as no new or unexpected result is produced from using one or the other. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify EPO '968, such that the sensor arrangement (48) is a phonic wheel arrangement, to determine the speed of rotating element. Likewise, it would have been obvious to one having ordinary skill in the art at the time of the invention to construct the shield of rubber as no new or unexpected result is brought about by such a modification.

7. Ouchi teaches a sealing arrangement that includes two metal inserts (12, 22a), a seal between the inserts (see figure 6), a sensor (27a), and a shield. (11a). The shield forms a static seal at a race, and a dynamic seal (23) at an annular channel. This arrangement provides redundancy in the seal arrangement, and thus provides a more effective sealing effect. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify EP '968 such that the shield forms a static seal against a bearing race, and dynamically seals the annular channel, as taught by Ouchi, in order to provide redundancy in the sealing arrangement, thus increasing efficiency of the seal.

8. With regard to the limitation requiring "vulcanized rubber", examiner notes that the term "vulcanized" refers to a manufacturing process, and is considered as a product-by-process limitation in an article claim. As long as the prior art product is capable of being made by the same process, then the prior art is considered to meet that limitation in the claim. Any rubber is capable of being vulcanized. Therefore, examiner asserts that Vignotto discloses a shield made of rubber that is capable of being vulcanized.

Response to Arguments

9. The after final amendment filed on October 24, 2005 has been entered. The indicated allowability of independent claim 6 has been withdrawn due to the newly found reference to Ouchi, and a previously unidentified 112 2nd paragraph issue, discussed above. Examiner notes that claim 6 appears to combine two separate embodiments of the invention. The drawings do not provide a figure that shows all of the elements of claim 6 in a single embodiment, and the specification does not discuss these elements of claim 6 being used in a single embodiment. However, it is noted, that the originally filed claims still discussed the elements of claim 6 where claim original claim 4 depended from original claim 3.

Conclusion

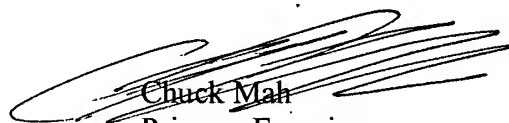
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Kyle whose telephone number is 571-272-7057. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk



Chuck Mah
Primary Examiner
Technology Center 3600